

ABSTRACT OF THE DISCLOSURE

Apparatus and methods are disclosed for synthesizing a plurality of compounds on the surface of supports. Biopolymer features are attached to the surfaces of the supports. The synthesis generally comprises a plurality of steps. In the present invention at least two of the steps are performed by placing a support having a functionalized surface into a chamber of a flow cell and subjecting the surface to a step of the synthesis and placing the support into a chamber of another flow cell and subjecting the surface to another step of the synthesis. An apparatus generally comprises a plurality of flow cells and one or more fluid dispensing stations are mounted on the platform and are in fluid communication with one or more of the plurality of flow cells. A station for monomer addition to the surface of the support is mounted on the platform. The apparatus further comprises a mechanism for moving a support to and from the station for monomer addition and a flow cell and from one flow cell to another flow cell.